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(Modified) PTO/SB/21 (6-98)  
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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number

10/609,296

Filing Date

June 27, 2003

First Named Inventor

Poul Baad Rasmussen

Group Art Unit

1647

Examiner Name

Seharaseyon, J.

Attorney Docket Number

0228us420

## ENCLOSURES (check all that apply)

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Amendment / Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Assignment Papers (for an Application)
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Small Entity Statement
- ☐ Request for Refund

- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Additional Enclosure(s) (please identify below):

Copies of Int'l PCT Search Report & Preliminary Examination Report for PCT/DK00/00417; Int'l Search Report for PCT/DK02/00128;

### Authorization to Charge Deposit Account

Please charge Deposit Account No. **50-0990** for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed.

Remarks

Copies of PTO/SB/08A-B forms from parent appn 10/084,706 & grandparent appn 09/648,569; Supplemental IDS & PTO/SB/08A-B form (with copies of 3 references); Return Postcard

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name

Margaret A. Powers – Reg. No. 39,804

Signature

Date

July 27, 2006

## CERTIFICATE OF MAILING

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Ann Massey

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Date

27 July 2006



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Alexandria, VA 22313-1450  
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On 27 July 2006

By Ann Massey  
Ann Massey

Attorney Docket No. 0228us420

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Poul B. Rasmussen, *et al.*

Application No.: 10/609,296

Filed: June 27, 2003

For: Interferon-Beta Variants and Conjugates

Examiner: J. Seharaseyon

Art Unit: 1647

SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER  
37 CFR § 1.97 and § 1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Mail Stop: Amendment

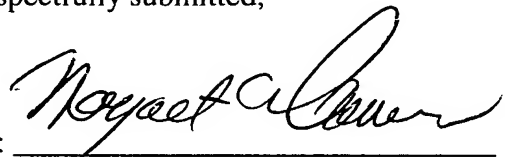
Sir:

The references cited on attached form PTO/SB08A-B are being called to the attention of the Examiner. Copies of the cited references – except cited U.S. patents and U.S. patent application publications – are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the “references cited” on any patent to issue therefrom.

As provided for by 37 CFR §§ 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this Information Disclosure statement, since it is being submitted prior to the first Office Action on the merits. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0990. Please deduct any additional fees from or credit any overpayment to the above-noted Deposit Account.

Respectfully submitted,

By:   
Margaret A. Powers  
Reg. No. 39,804

July 27, 2006  
Maxygen, Inc.  
Intellectual Property Department  
515 Galveston Drive  
Redwood City, California 94063  
Telephone: (650) 298-5809  
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Customer No. 30560

Copy from Parent Application

Substitute for form 1449A-B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	Complete if Known	
	Application Number	10/084,706 10/609,296
	Filing Date	February 26, 2002 June 27, 2003
	First Named Inventor	Rasmussen, et al.
	Group Art Unit	1647
	Examiner Name	J. Seharaseyon
	Attorney Docket Number	0228us410 0228us420

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
	1	EP	0 287 075	B2	Dr. Rentschler Biotechnologie GmbH	10/19/1988		X
	2	EP	0 287 075 (English language translation of document AY)	B2	Dr. Rentschler Biotechnologie GmbH	10/19/1988		
	3	WO	01/15736	A2	Maxygen ApS	03/08/2001		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T	
	4	O'CONNELL, <i>et al.</i> , "The Influence of Flanking Sequences on O-Glycosylation", <i>Biochemical and Biophysical Research Communications</i> , 1991, pp. 1024-1030, 180:2.		

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Copy from Parent Application

Substitute for form 1449A-B/PTO  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)	Complete if Known	
	Application Number	09/648,569 10/609,296
	Filing Date	August 25, 2000 June 27, 2003
	First Named Inventor	A. H. Pedersen Poul B. Rasmussen
	Group Art Unit	1647
	Examiner Name	J. Seharaseyon
	Attorney Docket Number	0202us810 0228us420

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
	1	5,206,344		Katre et al.	04/27/1993	
	2	5,738,846		Greenwald et al.	04/14/1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
	3	EP	0 370 205	A2	Kyowa Hakko Kogyo Co., Ltd.	05/30/1990		
	4	EP	0 529 300	B1	Rentschler Biotechnologie GmbH & Co.	03/03/93		X
	5	EP	0 529 300 (English language translation of document #4)	B1	Rentschler Biotechnologie GmbH & Co.	03/03/93		
	6	WO	95/27502	A1	Research Development Foundation	10/19/1995		
	7	WO	98/35026	A1	Novo Nordisk A/S	08/13/1998		
	8	WO	99/55377	A2	Applied Research Systems	11/04/1999		

OTHER ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T	
	9	Derwent Abstract 012152872 for WO 98/48018, a German publication cited in previous IDS Form-1449.		
	10	Derwent Abstract 009442954 for EP 539 300, a French publication cited in previous IDS Form-1449.		

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Substitute for form 1449A-B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	<del>09/048,569</del> 10/609,296
Filing Date	August 25, 2000 June 27, 2003
First Named Inventor	Anders Hjelholt Pedersen Pov/Rasmussen
Group Art Unit	1633-1647
Examiner Name	Unassigned J. Seharaseyon
Attorney Docket Number	31-107600US 0228 US 420

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
	AA	4,588,585		Mark et al.	05-13-1986	
	AB	4,686,191		Itoh et al.	08-11-1987	
	AC	4,769,233		Bell et al.	09-06-1988	
	AD	4,904,584		Shaw	02-27-1990	
	AE	4,914,033		Bell et al.	04-03-1990	
	AF	4,917,888		Katre et al.	04-17-1990	
	AG	4,966,843		McCormick et al.	10-30-1990	
	AH	5,218,092		Sasaki et al.	08-06-1993	
	AI	5,376,567		McCormick et al.	12-27-1994	
	AJ	5,382,657		Hoffmann-La Roche Inc.	01-17-1995	
	AK	5,545,723		Goelz et al.	08-13-1996	
	AL	5,795,779		McCormick et al.	08-18-1998	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
	AM	WO	95/25170		Biogen, Inc.	09-21-1995		
	AN	WO	98/48018		Fraun-Hofer- Gesellschaft Zur Forderung Der Angewandten	10-29-1998		
	AO	WO	99/03887		Bolder Biotechnology	01-28-1999		
	AP	WO	99/55377		Applied Research	11-04-1999		
	AQ	WO	99/67291		Immunex Corporation	12-29-1999		
	AR	WO	00/23114		Biogen, Inc.	04-27-2000		

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Substitute for form 1449A-B/PTO  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)	Complete if Known	
	Application Number	<del>09/648,569</del> 10/609,296
	Filing Date	<del>August 25, 2000</del> June 27, 2003
	First Named Inventor	Anders, Hjelholt Pedersen Poul Rasmussen
	Group Art Unit	1633 1647
	Examiner Name	Unassigned J. Seharaseyon
	Attorney Docket Number	31-107600US 0228US 420

AS	WO	00/23472	Biogen, Inc.	04-27-2000	
AT	WO	00/26354	Novo Nordisk	05-11-2000	
AU	EP	083 069	Kyowa Hakko Kogyo Co., Ltd.	09-16-1987	
AV	EP	041 313	Biogen, Inc.	09-12-1990	
AW	EP	229 108	Cetus Corporation	12-27-1990	
AX	EP	260 350	Cetus Corporation	02-12-1992	
AY	EP	287 075	Arzeneimittelforschung /Drug Research	01-18-1995	
AZ	EP	539 300	Philippe Thiriet	02-07-1996	
BA	EP	593 868	Hoffmann-La Roche Inc.	04-15-1998	

OTHER PRIOR ART - NON PATECNT LITERATURE DOCUMENTS					T
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
	BB	Fierlbeck et al., "Neutralising interferon $\beta$ antibodies in melanoma patients treated with recombinant and natural interferon $\beta$ " <u>Cancer Immunol Immunother</u> (1994) 39:263-268			
	BC	Karpusas et al., "The Structure of Human Interferon- $\beta$ : Implications for activity" <u>CMLS</u> 54 (1998) 1203-1216			
	BD	Karpusas et al. "The crystal structure of human interferon $\beta$ at 2.2 A resolution" <u>Proc. Nat. Acad. Sci. USA</u> (1997) 94:11813-11818			
	BE	Mayorga et al., "Antibodies to Commercially Available Interferon-Bet Molecules in Multipule Sclerosis Patients Treated with Natural Interferon-Beta" <u>Int. Arch. Allergy Immunol</u> 1999; 118:368-371			
	BF	Munschauer et al., "Managing Side Effects of Interferon-Beta in Patients with Relapsing-Remitting Multipule Sclerosis" <u>Clinical Therapeutics</u> vol. 19, No. 5, 1997 883-893			
	BG	Redlich et al., "Antibodies that neutralize human $\beta$ interferon biologic activity recognizing a linear epitope: Analysis by synthetic peptide mapping" <u>Proc. Natl. Acad. Sci. USA</u> vol. 88, pp. 4040-4044 May 1991			

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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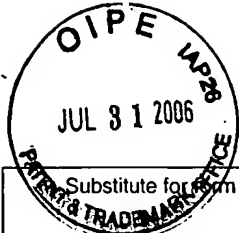
Substitute for form 1449A-B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	Complete if Known	
	Application Number	<del>09/648,569</del> 10/609,296
	Filing Date	<del>August 25, 2000</del> June 27, 2003
	First Named Inventor	<del>Anders Hjeltnit Pedersen</del> Povl Rasmussen
	Group Art Unit	1633 1647
	Examiner Name	Unassigned J. Scharaseyov
	Attorney Docket Number	31-107600US 0228 vs 420

BH	Rudick et al., "Incidence and significance of neutralizing antibodies to interferon beta-1a in multiple sclerosis" <u>Neurology</u> May 1889, 50: 1266-1272	
BI	Runkel et al., "Structural and Functional Differences Between Glycosylated and Non-Glycosylated Forms of Human Interferon- $\beta$ (IFN- $\beta$ )" <u>Pharmaceutical Research</u> vol. 15, No 4, 1998, 641-649	
BJ	Runkel et al, 1998, Jour. Biol. Chem. Difference in Activity between $\alpha$ and $\beta$ Type I Interferons Explored by Mutational Analysis" 273, No. 14, pp. 8003-8008	
BK	Senda et al., "Refined Crystal Structure of Recombinant Murine Interferon- $\beta$ at 2.15 A Resolution" <u>J. Mol. Biol.</u> (1995) 253, 187-207	
BL	Stewart et al, DNA "Chemical Mutagenesis of Human Interferon- $\beta$ : Construction, Expression in E. coli, and Biological Activity of Sodium Bisulfite-Induced Mutations Vol 6 no 2 1987 p119-128	
BM	Tanigunchi, et al., "The nucleotide sequence of human fibroblast interferon cDNA" <u>Gene</u> 10 (1980) 11-15	
BN	Yong et al., "Interferon beta in the treatment of multiple sclerosis" <u>Neurology</u> 1998; 51: 682-689	

Examiner Signature		Date Considered	
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<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	Substitute for Form 1449A-B/PTO		<b>Complete if Known</b>	
	Application Number		10/609,296	
	Filing Date		June 27, 2003	
	First Named Inventor		Poul Baad Rasmussen	
	Group Art Unit		1647	
	Examiner Name		Jegatheesan Seharaseyon	
Attorney Docket Number		0228us420		

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
FAC	1	6,531,122		Pedersen et al.	03-11-2003	
	2	2003/0175240A1 (USSN 10/325,720)		Pedersen et al.	09-18-2003	
	3	2003/0170206A1 (USSN 10/084,706)		Rasmussen et al.	09-11-2003	

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	4	Apweiler et al., "On the frequency of protein glycosylation, as deduced from analysis of the SWISS-PROT database," Biochim. Biophys. Acta 1473:4-8 (1999).	
	5	Wells et al., "Additivity of Mutational Effects in Proteins," Biochemistry 29(37):8509-8517 (1990).	
	6	Ngo et al., "Computation Complexity, Protein Structure Prediction, and the Levinthal Paradox," in THE PROTEIN FOLDING PROBLEM AND TERTIARY STRUCTURE PREDICTION, pp. 492-495 (K. Merz Jr. and S. Le Grand, eds., 1994).	

Examiner Signature		Date Considered	
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